

Appropriate use of OSS

The key persons are software engineers

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Embedded Linux Conference 2017, Portland

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Sony corporation

About myself

- **OSS Community liaison**

- Establishment and fostering the CE Linux Forum since 2003
 - CE Linux Forum: former organization of The Linux Foundation CE Workgroup
- Promote Linux for use in Consumer Electronics appliances

- **Within Sony**

- Open Source Strategy
- Reinforcement of OSS License compliance
- <http://oss.sony.net/Products/Linux>



Get bored talking about appropriate **“USE”**



- Many people ask me about the appropriate **use** of OSS, in my company
- I know:
 - It is so important
- I know:
 - Many people do not understand
 - Many people are caught by myths, i.e. use of OSS may cause litigation

Just stay “Using OSS” is too boring to enjoy life!

From our internal training course material



180pages of the textbook
350 pages of the slides

For software developers
For supply-chain managers

8 hours

Nick named: ***Ueda's Open Source Software Boot Camp***

Too simple question to reply

What is "Software License"?



<http://www.visioncreation.co.uk/>
By Paul Inkles (<https://www.flickr.com/photos/dumfstar/>)

What is software license?

Fundamentally :



The rights of software authors are protected by
"copyright law"

What is software license?

Therefore :

The authors of the software (copyright holders) have the **authority to grant the use of his/her/their copyrighted materials** under **certain conditions which reflect the intention of the authors**



What is software license?

Which means :

Software License is the document which states the conditions to use the copyrighted material and the hint to know the intention of the authors letting us to use the software

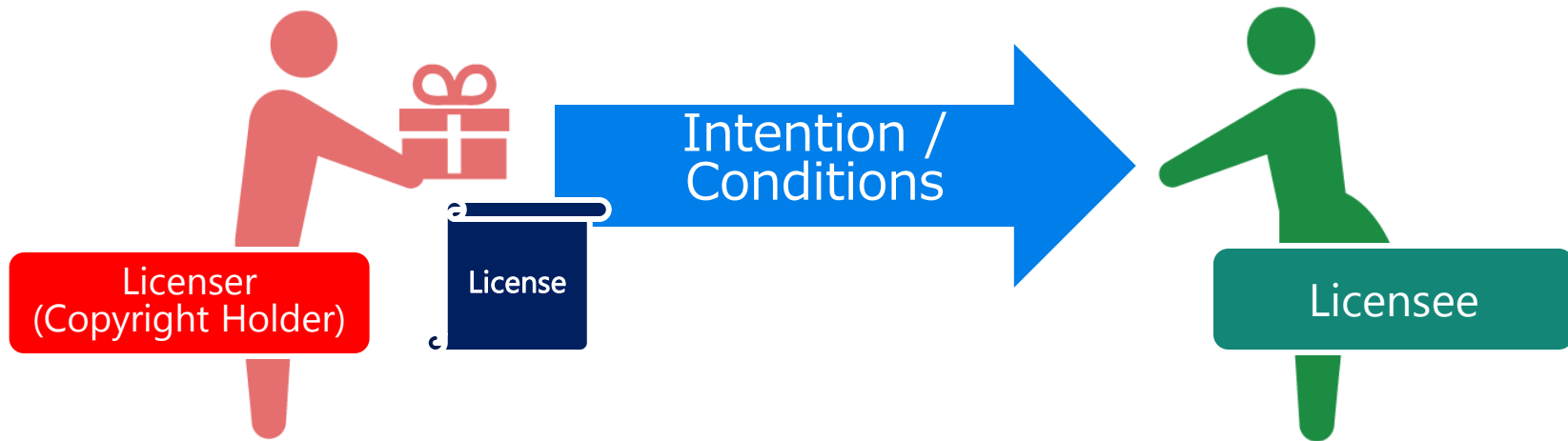


Ordinal Software License Agreement

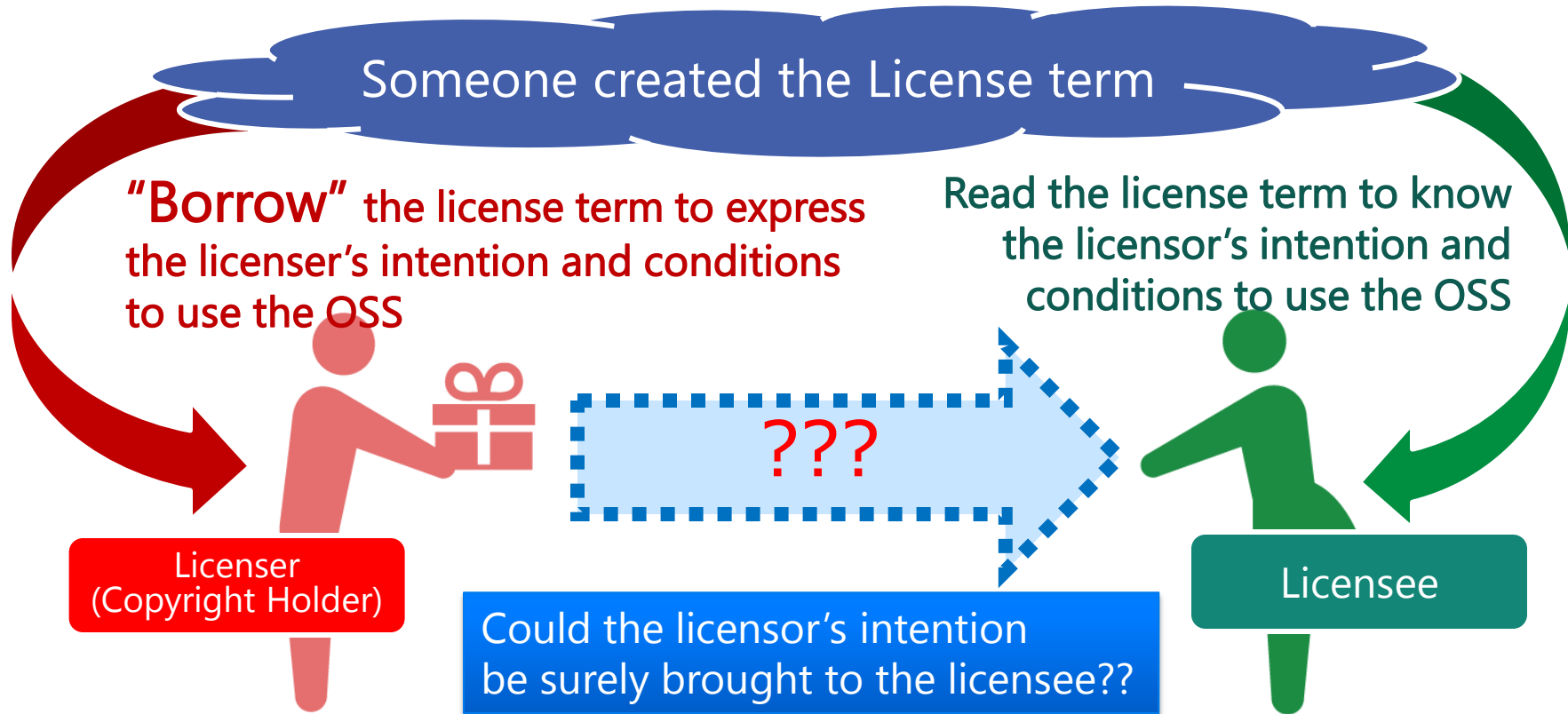
The licensor prepare the license agreement which include:

- The intention of the licensor to distribute the software
- The conditions to use the software

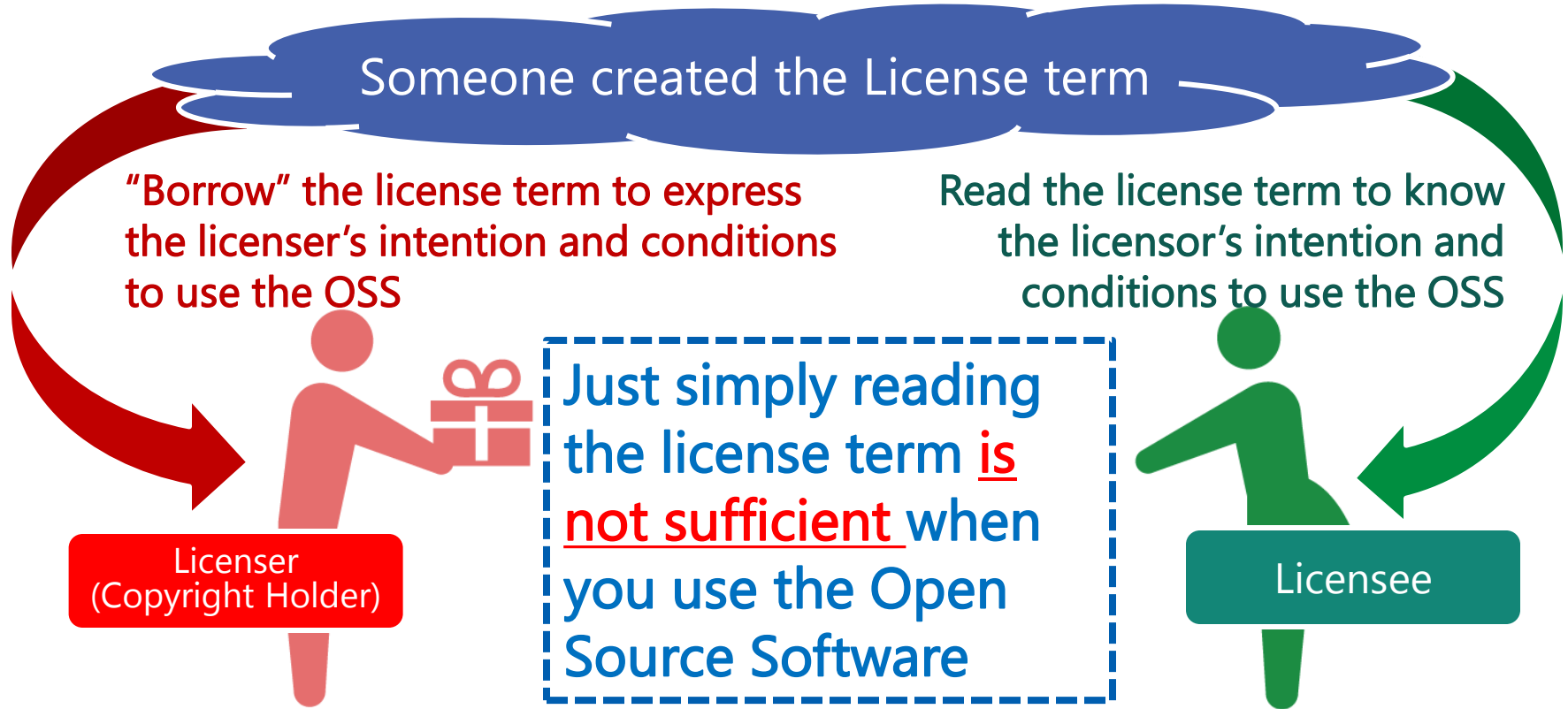
Through simply reading the license agreement, or the communication with the licensor, the licensee surely understand the conditions of the intention of the licensor.



OSS License Agreement



OSS License Agreement



Two critical issues to read OSS license

1. Read the OSS License term carefully

Definitely it is very important!

2. Understand the OSS development community's intention

Why is the community releasing the software under OSS license?
What are their anticipations to the uses?
What makes community disappointed?

Legal and IP staffs



Must they have the **insights to the community**?

Is it realistic?

Legal / IPD

Their expertise are:

1.

Read the OSS License term carefully

and detect the legal or patent risks.

A sad misunderstandings to Legal / IPD staffs

Legal / IPD

Software engineers' expertise



2. Understand the OSS development community's intention

Why is the community releasing the software under OSS license?
What are their anticipations to the uses?
What makes community disappointed?

What is most important when facing OSS is ...

**Think about the people developing OSS
(the community)**

Try to

Appropriately understand them

The starting point of handling OSS is ...

Always keep in mind that

As a respectful citizen in the community,
behave honorably.



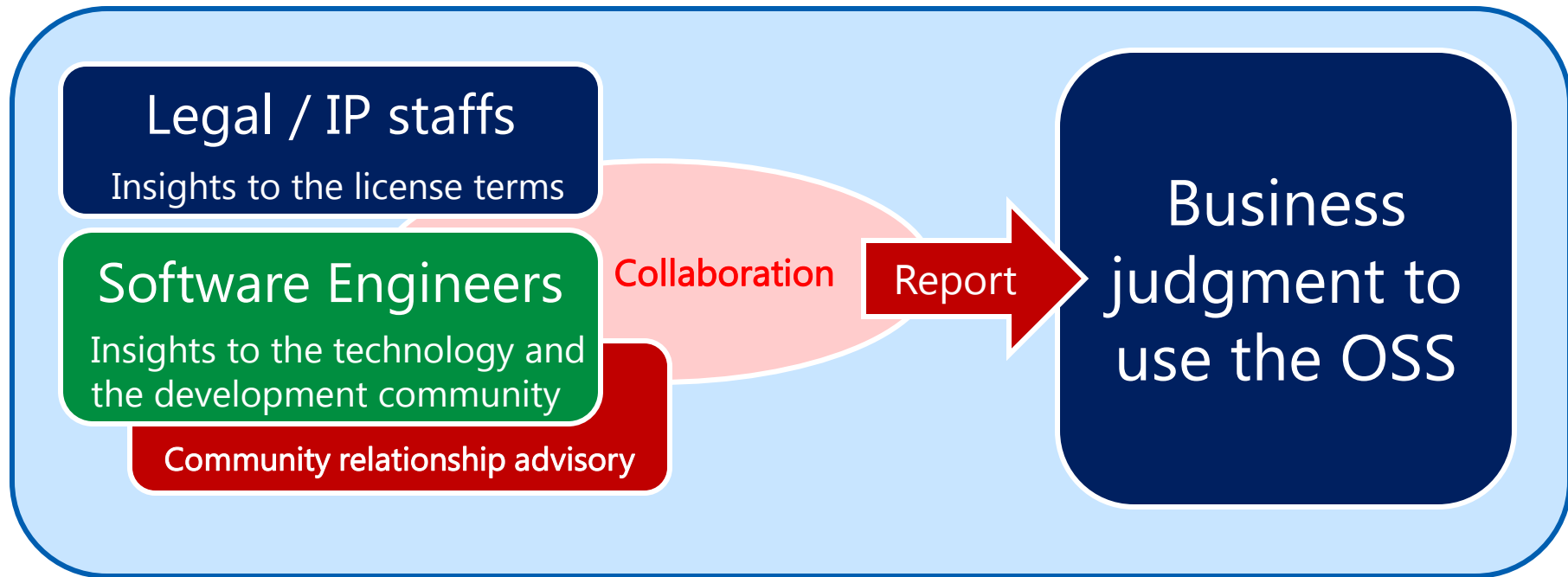
Never stray from the right path or do
something devious!

The WORST thing

Attempt to hide the fact to use the OSS for your products



In-house Framework of Appropriate use of OSS



Conclusion: “Collaboration” is the key word (1)

Appropriate use of OSS

**Collaboration
and
Trust**

Software engineers
and
Community relationship experts

With commonsense of software
development work and insights
to the OSS community

Legal and IP experts

With insights to the OSS licenses

Ideal situation!

Legal / IPD

Software Engineers
OSS community experts

In-house community

Appropriate and
aggressive use of OSS

Proposals

Encourage software engineers to **participate in the OSS community**

To get actual feelings of what the development community is intending for the OSS

Create **in-house community** consisted by legal experts and community/technology experts

Tell stories what the OSS development community is intending

i.e. : Linus Torvalds' email message sometimes so useful to understand the Linux community's intention

Proposals to OSS community leaders such as the Linux Foundation

Proposed daily life of software engineers

A problem has been detected and windows has been shut down to prevent damage to your computer.

The problem seems to be caused by the following file: SPCMDCON.SYS

PAGE_FAULT_IN_NONPAGED_AREA

If this is the first time you've seen this Stop error screen, restart your computer. If this screen appears again, follow these steps:

Check to make sure any new hardware or software is properly installed. If this is a new installation, ask your hardware or software manufacturer for any windows updates you might need.

If problems continue, you may need to troubleshoot your hardware or software. Disable all new hardware except the system hardware and restart your computer. If you need to use a recovery console, restart your computer, press F8 to select Advanced Startup Options, and then select Safe Mode.

Now, what should we do?

Technical information:

*** STOP: 0x00000050 (0xFD3094C2,0x00000001,0xFBFE7617,0x00000000)

*** SPCMDCON.SYS - Address FBFE7617 base at FBFE5000, DateStamp 3d6dd67c

An embarrassing case

“I’m lost, I don’t know what kind of software is in this product...”

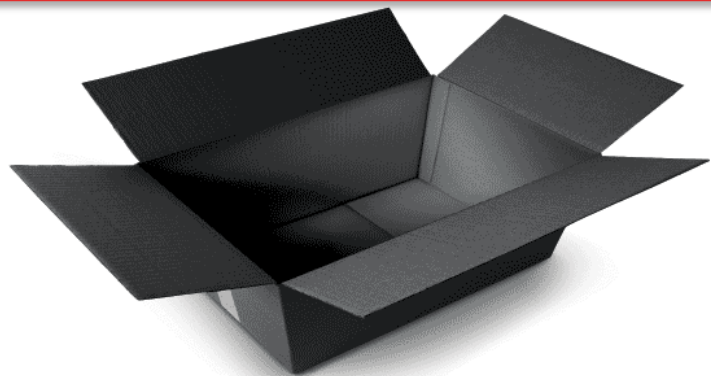


The most basic part of software engineering!

Maintain and record the software configuration.



Perform configuration management appropriately



- Software module information
- Modification record
- Source code
- License information

The information obtained from this management will be the lifeline to suitable OSS usage.

This is the first step for appropriate OSS use

Don't swallow anything without thinking twice!



Hey!
I've found cool software on
the Web site.

Even if you find attractive software,
evaluate it before using it!



Proposals : They must be commonsense for software engineers, I hope

Software Configuration Management is the most vital matter!

Any methods will do so long as it can record software configuration appropriately

Never hide the fact of using OSS

Record the fact and the usage of OSS into the configuration management system
Those information must be shared with your client

Evaluate the OSS when you decide the use

Technical aspects (feature, quality...) , license as well as the community ecosystem

Proposals to all software engineers

Together with the external partners

Supply chain issue

Appropriate knowledge and behavior



Even if Sony have enough skill and knowledge, it is impossible to perform appropriately without partners' help

Poor



No way!!

Sony

Appropriate knowledge and behavior

**Ideal situation
that we should aim at**

ODM / OEM Partners

Appropriate knowledge and behavior

The suggestion from the partner may save Sony, though it is embarrassing situation for Sony



What Sony is doing

Appropriate knowledge and behavior

Sony internal OSS training

Intensive OSS Training course (8 hours)

- **Principles of OSS**
- License detail
- Practical case studies

...and more

What Sony is anticipating at the first line

Sharing the
thoughts of the
principles
together with
our partners

- **Principles of OSS**
- License detail
- Practical case studies

Appropriate knowledge and behavior
ODM / OEM Partners



Two principles we would like to share at the first line

Principles?

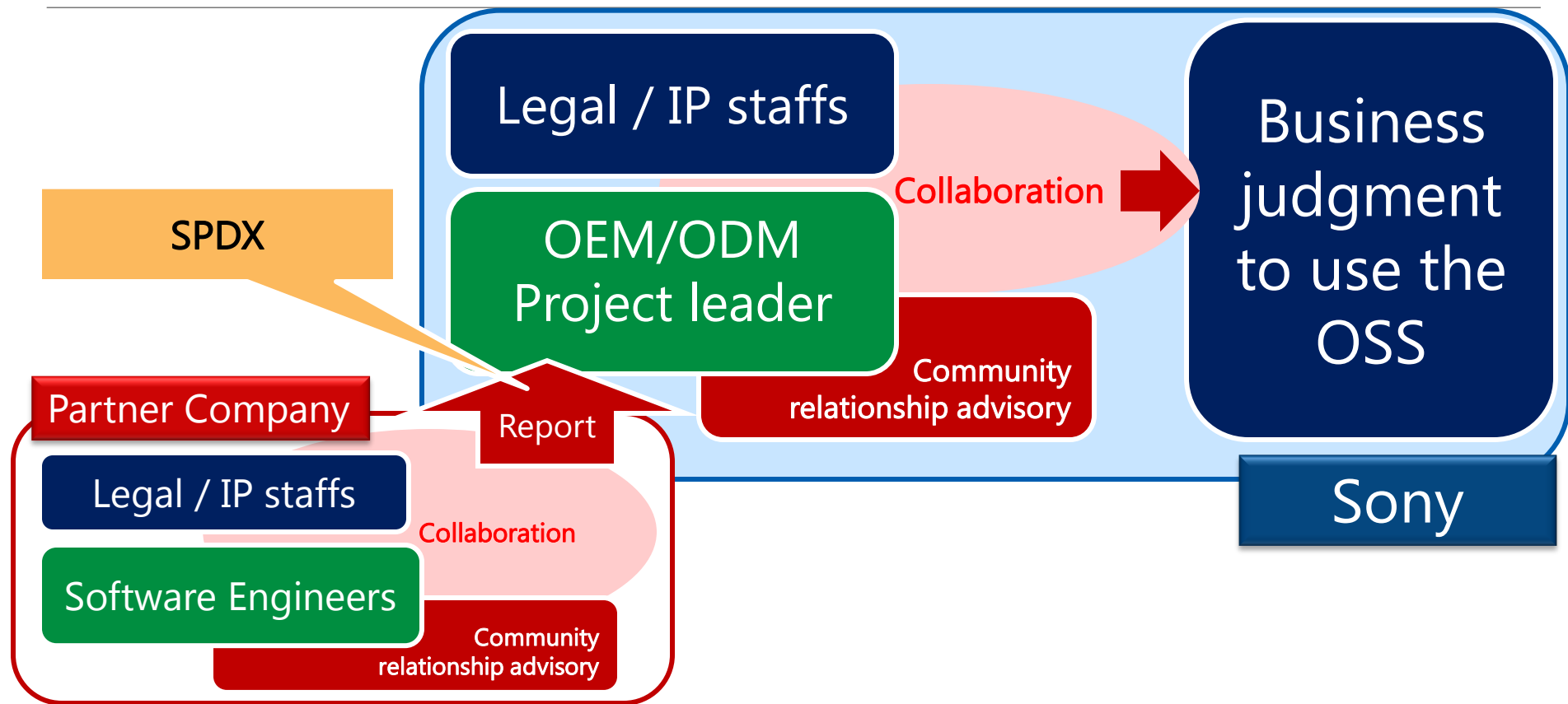
1

Thoughts about the uniqueness of OSS license agreement

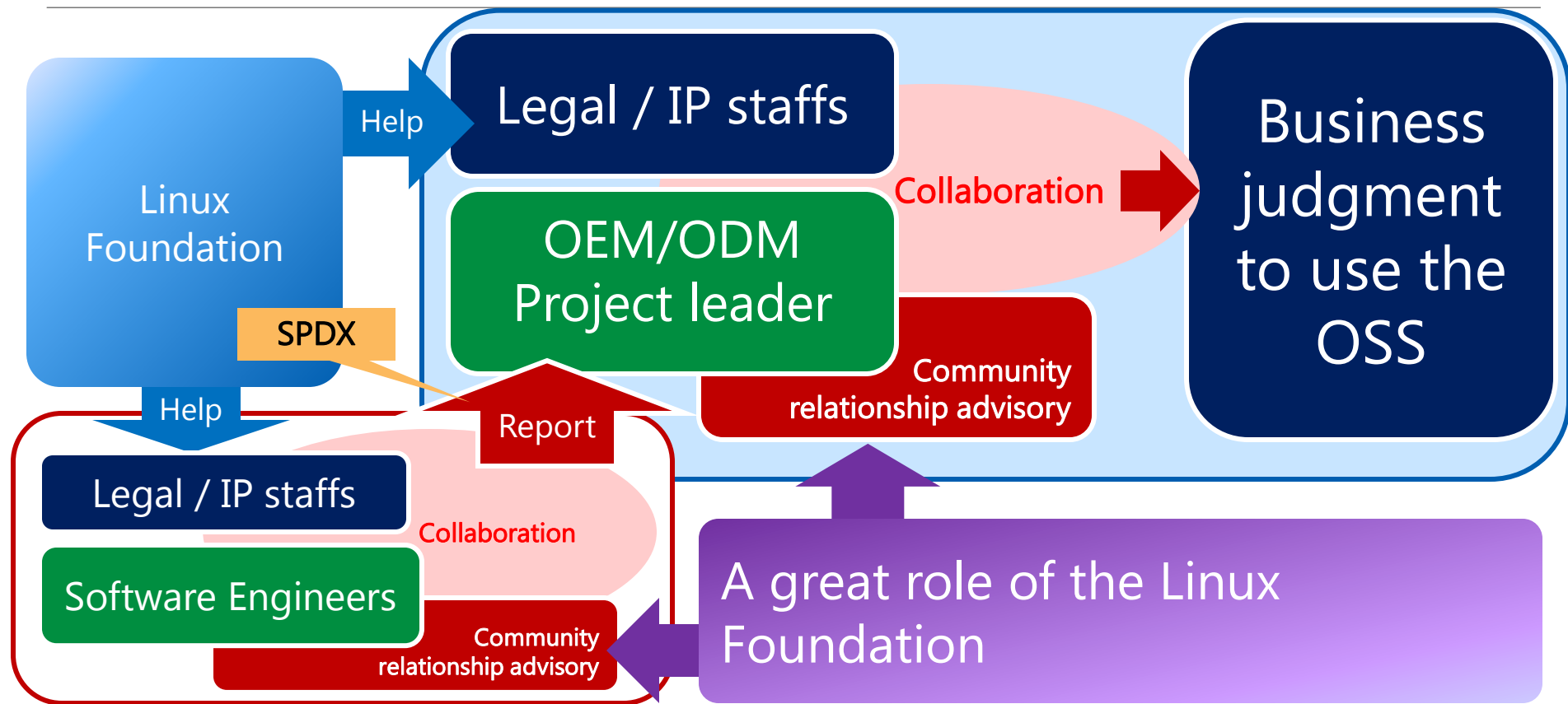
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Thoughts about very fundamental behavior required for software development

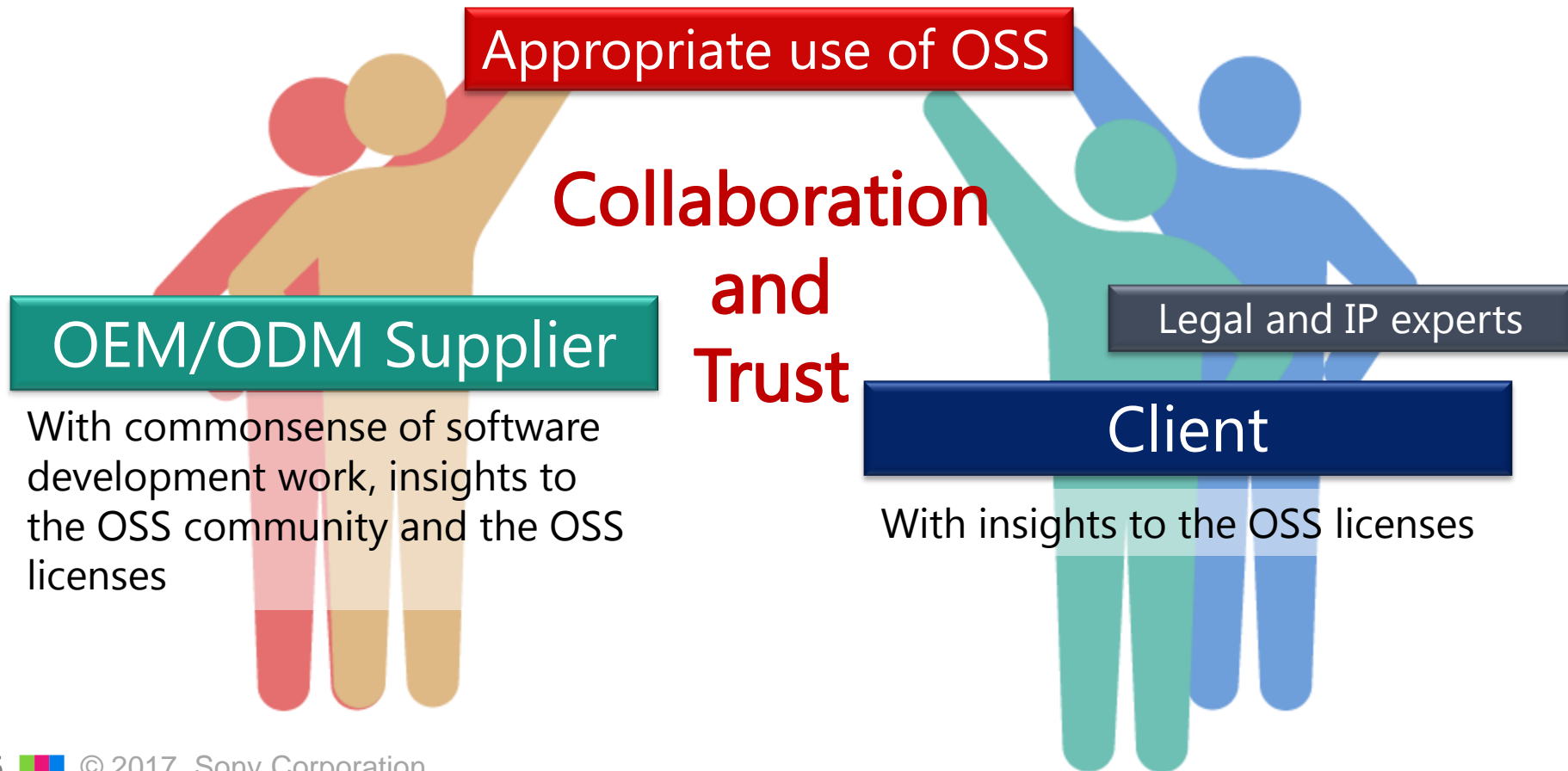
Framework of Appropriate use of OSS together with partners



Expected role of the Linux Foundation and the community



Conclusion: "Collaboration" is the key word (2)



Appropriate use of the Open Source Software

It is the **engineering issue**,
which is required legal help

Forgetting something?

The most important issue

A sad story which **actually happened**

Several years ago

Start USING a OSS

Fixed several bugs but
hoarded those patches

Did not upstream
to the community

Just recently

A severe security problem → security patch



The bug which they found have never fixed in the community.
Rather that, the situation became worse than past.

They strongly regretted why they had not up-streamed the patches

Just **USING** OSS?


Appropriate use of OSS

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Satoru Ueda, Sony corporation

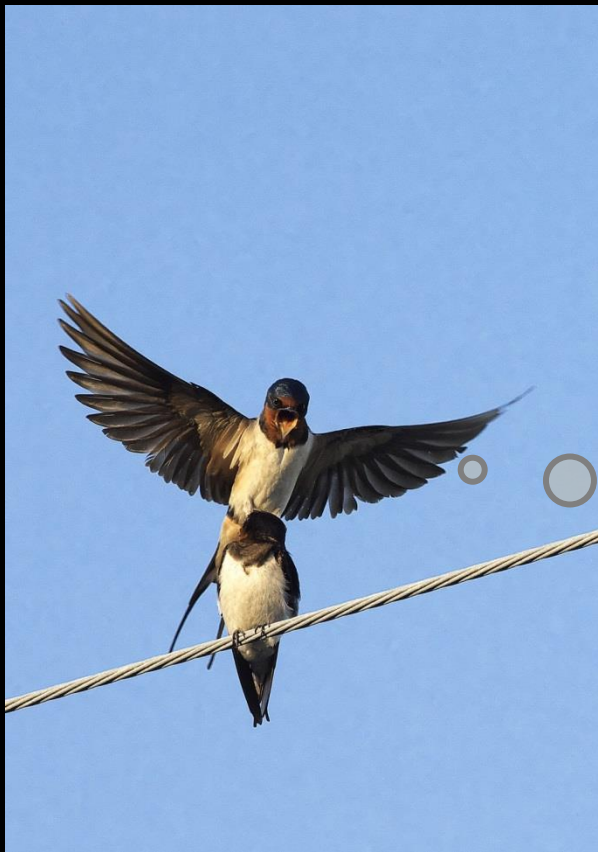
1  © 2017, Sony Corporation

The idea of “**Use OSS**” is not appropriate behavior and may course some risk

Just wait someone to bring your software?



Just wait someone to bring your software?



I believe community people are not
so cruel

but...

I am not a free of
charge servant of
you to create the
software!

Just wait someone to bring your software?



Let's fly together in the open
blue sky!



“Just waiting” is not an ideal strategy

OSS community is a place to make collaborative creation and innovation



Together! Toward future! Enjoy Innovation!



Activities of CEWG (Event: ELC / ELC-Europe)



- Embedded Linux Conference (US) and Embedded Linux Conference – Europe are the Linux Foundation hosting events focusing on OSS for embedded system, which CEWG strongly supporting
 - Both ELC and ELC-E are hosted by CE Linux Forum which is the former organization of CEWG
 - Spring time in US and fall timing in Europe
 - More than 500 embedded OSS enthusiasts are getting together for the exciting sessions
 - 2015 was the 10th anniversary year!



Activities of CEWG (Event: Japan Technical Jamboree)



- A step to bring Japanese embedded system developers' ideas and challenges to the global community

- Started October 2004, to be held about 3 month interval, recently
- Will Count 60 times in next month
- Assembling top notch developers from many companies, universities and more
- Not only for the experts but also novice persons
- Many Japanese developer jumped into the global community, hopping at Jamboree and stepping at ELC



In the next ELC-Europe

- I would like to review the 60 times of Japan Jamboree together with the evolution of OSS for embedded system aiming at the future! ... if my session proposal will be approved 😊



See you at Prague!

References

- CEWG Web site
 - <http://www.linuxfoundation.org/collaborate/workgroups/celf>
- LTSI project
 - <http://ltsi.linuxfoundation.org/>
- Open Project
 - http://elinux.org/CEWG_Open_Project_Proposal_2015 (solicitation of the candidate for 2015)
- Embedded Linux Conference
 - ELC-Europe 2017
 - <http://events.linuxfoundation.org/events/embedded-linux-conference-europe>
 - ELC 2016
 - <http://events.linuxfoundation.org/events/embedded-linux-conference>
- Japan Technical Jamboree
 - http://elinux.org/Japan_Technical_Jamboree_Guidance

References

- Open Chain Project

- <https://wiki.linuxfoundation.org/openchain/>

- SPDX project

- <https://spdx.org/>

Thank you very much for your attention

